EPA Facility Identifier: 1000 0012 2173 Plan Sequence Number: 38577

# **Section 1. Registration Information**

#### Source Identification

Facility Name:

Goal Line, LP

Parent Company #1 Name: Parent Company #2 Name:

### Submission and Acceptance

Submission Type: Re-submission

Subsequent RMP Submission Reason: 5-year update (40 CFR 68.190(b)(1))

Description:

Receipt Date: 25-Jun-2004
Postmark Date: 25-Jun-2004
Next Due Date: 25-Jun-2009
Completeness Check Date: 25-Aug-2004

Complete RMP: Yes

De-Registration / Closed Reason:

De-Registration / Closed Reason Other Text:

De-Registered / Closed Date:

De-Registered / Closed Effective Date:

Certification Received: Yes

### **Facility Identification**

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Other EPA Systems Facility ID: Cal000122995

#### **Dun and Bradstreet Numbers (DUNS)**

Facility DUNS:

861499762

Parent Company #1 DUNS: Parent Company #2 DUNS:

## **Facility Location Address**

Street 1: 555 N. Tulip St

Street 2:

 City:
 Escondido

 State:
 CALIFORNIA

 ZIP:
 92025

 ZIP4:
 2532

 County:
 SAN DIEGO

#### Facility Latitude and Longitude

Latitude (decimal): 33.118611
Longitude (decimal): -117.098889
Lat/Long Method: Interpolation - Map

Lat/Long Description: Plant Entrance (Personnel)

Horizontal Accuracy Measure: 25

Horizontal Reference Datum Name: North American Datum of 1983

Source Map Scale Number: 24000

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Owner or Operator

Operator Name: PurEnergy, LLC
Operator Phone: (315) 448-2266

Mailing Address

Operator Street 1: 1732 W. Genesee St

Operator Street 2:

Operator City: Syracuse
Operator State: NEW YORK
Operator ZIP: 13204
Operator ZIP4: 1904

Operator Foreign State or Province:

Operator Foreign ZIP:
Operator Foreign Country:

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person: Robert Mason RMP Title of Person or Position: Facility Manager

RMP E-mail Address: robert2.mason@ps.ge.com

**Emergency Contact** 

Emergency Contact Name:Robert MasonEmergency Contact Title:Facility ManagerEmergency Contact Phone:(760) 738-4999Emergency Contact 24-Hour Phone:(619) 341-0419

Emergency Contact Ext. or PIN:

Emergency Contact E-mail Address: robert2.mason@ps.ge.com

Other Points of Contact

Facility or Parent Company E-mail Address:

Facility Public Contact Phone:

Facility or Parent Company WWW Homepage

Address:

**Local Emergency Planning Committee** 

LEPC: Region VI LEPC

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site: 10

FTE Claimed as CBI:

Covered By

OSHA PSM: Yes EPCRA 302: Yes

CAA Title V:

Air Operating Permit ID:

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#### **OSHA** Ranking

OSHA Star or Merit Ranking:

#### Last Safety Inspection

Last Safety Inspection (By an External Agency)

Date:

Last Safety Inspection Performed By an External

Agency:

05-Jun-2002

State environmental agency

#### Predictive Filing

Did this RMP involve predictive filing?:

#### **Preparer Information**

Preparer Name: Risk Management Professionals, Inc

Preparer Phone: (949) 282-1023
Preparer Street 1: 27405 Puerta Real

Preparer Street 2: Suite 220
Preparer City: Mission Viejo
Preparer State: CALIFORNIA
Preparer ZIP: 92691

Preparer ZIP4:
Preparer Foreign

Preparer Foreign State: Preparer Foreign Country: Preparer Foreign ZIP:

#### Confidential Business Information (CBI)

CBI Claimed:

Substantiation Provided: Unsanitized RMP Provided:

#### Reportable Accidents

Reportable Accidents: See Section 6. Accident History below to determine

if there were any accidents reported for this RMP.

#### **Process Chemicals**

Process ID: 55528

Description: SCR Aqua Tank

Process Chemical ID: 73445

Program Level: Program Level 3 process
Chemical Name: Ammonia (conc 20% or greater)

CAS Number: 7664-41-7

Quantity (lbs): 146000

CBI Claimed:

Flammable/Toxic: Toxic

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## **Process NAICS**

Process ID: 55528
Process NAICS ID: 56800

Program Level: Program Level 3 process

NAICS Code: 221119

NAICS Description: Other Electric Power Generation

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## **Section 2. Toxics: Worst Case**

Toxic Worst ID: 36525

Percent Weight: 30.0
Physical State: Liquid

Model Used: EPA's RMP\*Comp(TM)

Release Duration (mins): 10
Wind Speed (m/sec): 1.5
Atmospheric Stability Class: F
Topography: Urban

Passive Mitigation Considered

Dikes: Yes

Enclosures: Berms: Drains: Sumps: Other Type:

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## **Section 3. Toxics: Alternative Release**

Toxic Alter ID: 43134

Percent Weight: 30.0
Physical State: Liquid

Model Used: EPA's RMP\*Comp(TM)

Wind Speed (m/sec): 3.0
Atmospheric Stability Class: D
Topography: Urban

Passive Mitigation Considered

Dikes: Enclosures: Berms: Drains: Sumps:

Other Type: Spill Response Kit

**Active Mitigation Considered** 

Sprinkler System:
Deluge System:
Water Curtain:
Neutralization:
Excess Flow Valve:

Flares: Scrubbers:

Emergency Shutdown: Yes

Other Type:

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# **Section 4. Flammables: Worst Case**

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# **Section 5. Flammables: Alternative Release**

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# **Section 6. Accident History**

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# Section 7. Program Level 3

## Description

Aqueous Ammonia Storage Tank used as Nox abatement for Gas Turbine

## Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID: 46569

Chemical Name: Ammonia (conc 20% or greater)

Flammable/Toxic: Toxic CAS Number: 7664-41-7

Process ID: 55528

Description: SCR Aqua Tank

Prevention Program Level 3 ID: 31949 NAICS Code: 221119

#### Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):

17-Jun-2004

#### Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):

07-Jun-2004

#### The Technique Used

What If:

Checklist:

What If/Checklist:

Yes

HAZOP:

Failure Mode and Effects Analysis:

Fault Tree Analysis: Other Technique Used:

PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):

#### Major Hazards Identified

Toxic Release:

Yes

Fire: Explosion:

Runaway Reaction:

Polymerization:

Overpressurization: Yes Corrosion: Yes

Overfilling: Contamination:

Yes

**Equipment Failure:** 

Loss of Cooling, Heating, Electricity, Instrument Air:

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Yes

Yes

Yes

Earthquake:

Floods (Flood Plain):

Tornado: Hurricanes:

Other Major Hazard Identified:

Process Controls in Use

Vents:
Relief Valves:
Check Valves:

Check Valves: Yes Scrubbers: Yes

Flares:

Manual Shutoffs: Yes
Automatic Shutoffs: Yes

Interlocks:

Alarms and Procedures: Yes

Keyed Bypass: Emergency Air Supply:

Emergency Power:

Backup Pump: Yes

Grounding Equipment: Inhibitor Addition: Rupture Disks: Excess Flow Device: Quench System: Purge System:

None:

Other Process Control in Use:

Mitigation Systems in Use

Sprinkler System:

Dikes: Yes

Fire Walls:
Blast Walls:
Deluge System:
Water Curtain:
Enclosure:
Neutralization:

None:

Other Mitigation System in Use:

Monitoring/Detection Systems in Use

**Process Area Detectors:** 

Perimeter Monitors: Yes

None:

Other Monitoring/Detection System in Use:

Changes Since Last PHA Update

Reduction in Chemical Inventory:

Increase in Chemical Inventory:

Change Process Parameters:

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Installation of Process Controls:

Installation of Process Detection Systems: Installation of Perimeter Monitoring Systems:

Installation of Mitigation Systems:

None Recommended:

None: Yes

Other Changes Since Last PHA or PHA Update:

### **Review of Operating Procedures**

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures): 24-Jul-2003

#### Training

Training Revision Date (The date of the most recent 03-Nov-2003 review or revision of training programs):

## The Type of Training Provided

Classroom: Yes On the Job: Yes

Other Training:

## The Type of Competency Testing Used

Written Tests: Yes

Oral Tests: Demonstration:

Observation: Yes

Other Type of Competency Testing Used:

#### Maintenance

Maintenance Procedures Revision Date (The date of 20-Jul-2003 the most recent review or revision of maintenance procedures):

Equipment Inspection Date (The date of the most recent equipment inspection or test):

07-May-2002

Equipment Tested (Equipment most recently inspected or tested):

Aqueous Ammonia SCR system

#### Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):

15-Feb-1999

Change Management Revision Date (The date of the most recent review or revision of management of change procedures):

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#### **Pre-Startup Review**

Pre-Startup Review Date (The date of the most recent pre-startup review):

15-Feb-1995

#### **Compliance Audits**

Compliance Audit Date (The date of the most recent 05-Feb-2002 compliance audit):

Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):

18-Jun-2002

#### **Incident Investigation**

Incident Investigation Date (The date of the most recent incident investigation (if any)):

Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):

#### **Employee Participation Plans**

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):

17-Jun-2004

#### Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most 05-Dec-2003 recent review or revision of hot work permit procedures):

#### **Contractor Safety Procedures**

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):

10-May-2002

Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):

30-Apr-1999

#### **Confidential Business Information**

CBI Claimed:

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# **Section 8. Program Level 2**

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# **Section 9. Emergency Response**

#### Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):

Yes

Facility Plan (Does facility have its own written emergency response plan?):

Yes

Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):

Yes

Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?): Yes

Healthcare (Does facility's ER plan include information on emergency health care?):

Yes

#### **Emergency Response Review**

Review Date (Date of most recent review or update 15-Jan-2004 of facility's ER plan):

#### **Emergency Response Training**

Training Date (Date of most recent review or update 15-May-2003 of facility's employees):

#### Local Agency

Agency Name (Name of local agency with which the Fire Department, HAZMAT Division facility ER plan or response activities are coordinated):

Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):

(619) 338-2222

### Subject to

OSHA Regulations at 29 CFR 1910.38:

OSHA Regulations at 29 CFR 1910.120:

Yes

Clean Water Regulations at 40 CFR 112:

RCRA Regulations at CFR 264, 265, and 279.52:

OPA 90 Regulations at 40 CFR 112, 33 CFR 154,

49 CFR 194, or 30 CFR 254:

State EPCRA Rules or Laws:

Other (Specify):

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## **Executive Summary**

The Goal Line, LP Cogeneration facility (facility) is a combined cycle cogeneration plant located at 555 Tulip Street, Escondido, California. The facility is a combine cycle cogeneration facility that provides 50mW of energy and capacity to the local utility and employs 10 people at this location. Goal Line LP is located approximately 0.15 mile northeast of 1-15.

Management commitment to the inspection program includes not only the implementation of the standard operating procedures (SOPS) that define the inspections to be conducted, but also the response to deficiencies that compromise the risk reduction practices identified and implemented under the RMP. Management is willing to change procedures to provide better systematic support of risk reduction practices.

The facitly has the following toxic substances aboe the threshold quanity on table 1 Federally Regulated Substances List and Threshold quantities for Accidental Release Prevention: Ammonia(conc 20% or greater). 30 % Aqueous Ammonia is stored in a storage tank and is used as Nox abatement (SCR) for Gas Turbine.

Goal Line LP developed a risk management program and an emergency response plan to address Program 3 requirements in June 1999. Goal Line LP is extremely diligent in the handling of all chemicals and is dedicated to the safety of its employees and the neighboring community. Goal Line LP staff are highly trained and utilize modern equipment to monitor the facility and provide safeguards, while effectively and safely using ammonia for controlling NOx emissions.

#### ACCIDENTAL RELEASE PREVENTION AND EMERGENCY RESPONSE POLICIES

Goal Line LP has a long standing commitment to worker and public safety. This commitment is demonstrated by the resources invested in accident prevention, such as personnel training and consideration of safety in the design, operation, and maintenance of the Ammonia Injection Systems. Goal Line LP¿s policy is to implement reasonable controls to prevent foreseeable releases of regulated substances.

#### STATIONARY SOURCE AND REGULATED SUBSTANCE

The plant consists of the following major equipment:

¿Combustion turbine generator (CTG)

¿Heat recovery steam generator (HRSG)

¿Steam turbine generator (STG).

The plant also has the following ancillary systems and equipment that support its operation:

¿450-ton ammonia-absorption refrigeration unit (A-ARU)

¿Fuel gas system

¿Condensate system

¿Feed water system

¿Steam system

¿De-mineralized water supply system

¿Cooling water systems

¿CTG chiller water system

¿Compressed air system

¿Aqueous ammonia storage tank system

¿Cycle chemical feed system

#### HAZARD ASSESSMENT SUMMARY/OFFSITE CONSEQUENCE ANALYSIS

Ammonia Injection System ¿ Aqueous Ammonia

Worst-Case Release Scenario Results Summary

Scenario Description: Per regulations one worst case analysis has been defined as a release of the maximum quantity of aqueous ammonia that can be stored in the largest equipment item (the storage tank) in ten (10) minutes. Although there are numerous controls to prevent such a release and to manage its consequences, the Ammonia Injection System is located outside, and credit for passive mitigation by a dike area of 625 sq. ft and 4 ft deep was taken for the worst-case release scenario. The most pessimistic meteorological conditions were used, as specified by the regulations. RMP\*Comp was used to determine the maximum downwind endpoint distance to 0.14 mg/L. The results show the off-site areas that will be affected. This worst case release scenario is highly unlikely to occur because of active mitigation measures that can be taken and weather conditions that are unlikely

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as well

Alternative Release Scenario Results Summary

Scenario Description: A more realistic alternative release scenario was modeled as a release of aqueous ammonia as a result of a rupture of a transfer hose used to fill aqueous ammonia to the SCR ammonia storage tank. The plant spill response kit was used as passive mitigation.

The meteorological conditions specified by regulation for alternative release scenarios were used. RMP\*Comp was used to determine the maximum downwind endpoint distance to 0.14 mg/L. The downwind distance for this alternative release scenario is significantly less than that for the worst-case scenario.

**Risk Considerations** 

Although the storage and use of anhydrous and aqueous ammonia has inherent potential risks, and worst-case release scenarios can potentially reach the community; Goal Line LP has recognized these potential risks and structured its safety programs to make the worst case type of event non-credible. In addition to the safety practices of the company and plant personnel to make this worst-case event non-credible, it should also be recognized that there are inherent analysis assumptions that make the results of the atmospheric dispersion analysis appear worse than what would actually be expected during such an event (e.g., In the event of a release, sudden rupture and flashing of ammonia would be highly turbulent. Turbulence causes entrainment of air and the released vapor dilutes much more quickly than is shown in the model).

In addition to the use of conservative analysis assumptions that over-predict the effects of a potential release, other characteristics of the facility and site serve to minimize the potential risks associated with an ammonia release:

- ¿Ammonia sensors in the process area
- ¿Automatic / Manual shutdown
- ¿Personal Protective Equipment (PPE) is used by plant personnel, as necessary.
- ¿The history of the Goal Line LP facility (i.e., no ammonia releases) reflects the adequacy of the design and diligence of the plant staff in safely operating the Ammonia Absorption Refrigeration and Ammonia Injection Systems.

#### ACCIDENTAL RELEASE PREVENTION PROGRAM AND CHEMICAL-SPECIFIC PREVENTION STEPS

As part of the implementation of this Program 3, key Prevention Program elements were implemented by Goal Line LP to manage process safety issues associated with the use of ammonia for refrigeration. In addition, common industry standards, policies, and procedures are currently utilized to ensure safe practices are being performed. The Prevention Program 3 elements include:

¿Process Safety Information

¿Process Hazard Analysis

¿Operating Procedures

¿ Training

¿Mechanical Integrity

¿Management of Change

¿Pre-start up Review

¿Complaiance Audits

Investigation Participation

¿Hot Work Permit

¿Contractors

On the RMP\*Submit under Incident Investigation (item 7.11 a&b): as of this date there have been no incidents to investigate, therefore the date for this item is blank.

In addition, key emergency response elements were addressed in the Business Emergency Plan. See EMERGENCY RESPONSE PROGRAM below.

#### **FIVE-YEAR ACCIDENT HISTORY**

There have been no releases of ammonia at Goal Line LP in the past five years.

#### **EMERGENCY RESPONSE PROGRAM**

The Goal Line LP facility, is owned by PurEnergy and operated by GE Contractual Services (GECS). Goal Line LP supplies thermal coolant to the Iceoplex Sports Facility for the operation of its equipment/facility and supplies surplus electricity to San Diego Gas & Electric.

¿Incident

¿Employee

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The Emergency plan applicable to the Escondido facility is to be recognized as only a plan, and not a prescriptive document. Each incident is a unique event; therefore, this Plan is designed to incorporate the flexibility to tailor the response to meet the emergency.

The Plant Manager is responsible for promulgation, implementation, training and maintenance of the Emergency Response Plan.

This Plan meets the requirements of 29 CFR 1910.120 (q) Hazardous Waste Operations and Emergency Response, proposed 8 CCR 5192, Hazardous Waste Operations and Emergency Response, and 19 CCR 2731, Emergency Response Plans and Procedures.

#### PLANNED CHANGES TO IMPROVE SAFETY

Several studies have been conducted to examine mitigation measures to improve safety at Goal Line LP. These studies include the following: Process Hazard Analysis, and Hazard Assessment. Any outstanding recommendations from these studies will have been addressed by June 1, 2005.